

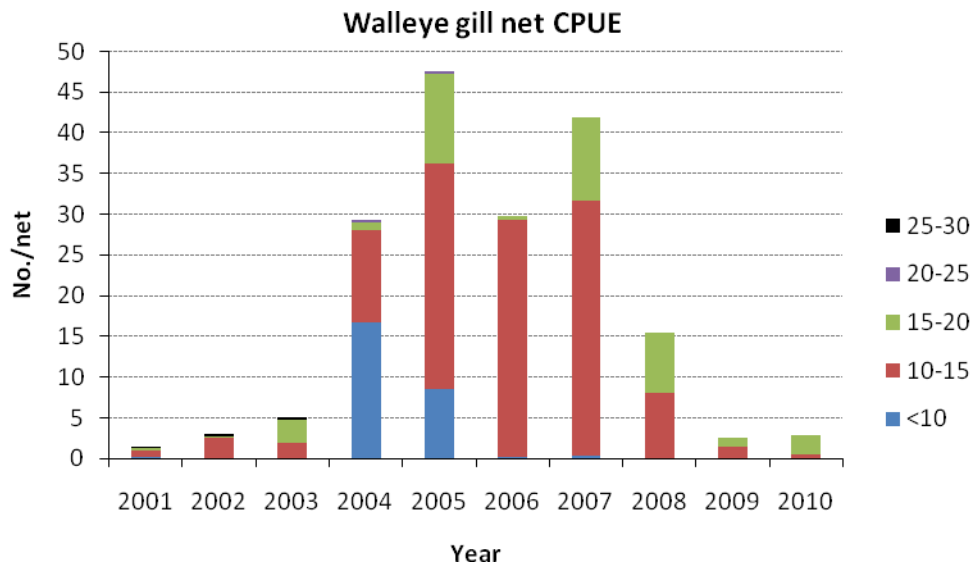
Willow Creek Reservoir 2010 Fall Survey Results

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The following text and graphs are the result of fall fish sampling at Willow Creek Reservoir near Pierce. Trap nets are used to sample shoreline-associated species such as panfish while gill nets are used to sample more open water species including walleye, channel catfish, and wipers. Sampling is standardized to be conducted at a similar time of the year using similar net locations to monitor trends in the various fish populations in the reservoir. Effort usually consists of 6-8 trap nets and 4 gill nets annually. The graphs contain sampling data back to 2001 for a ten-year comparison of catch.

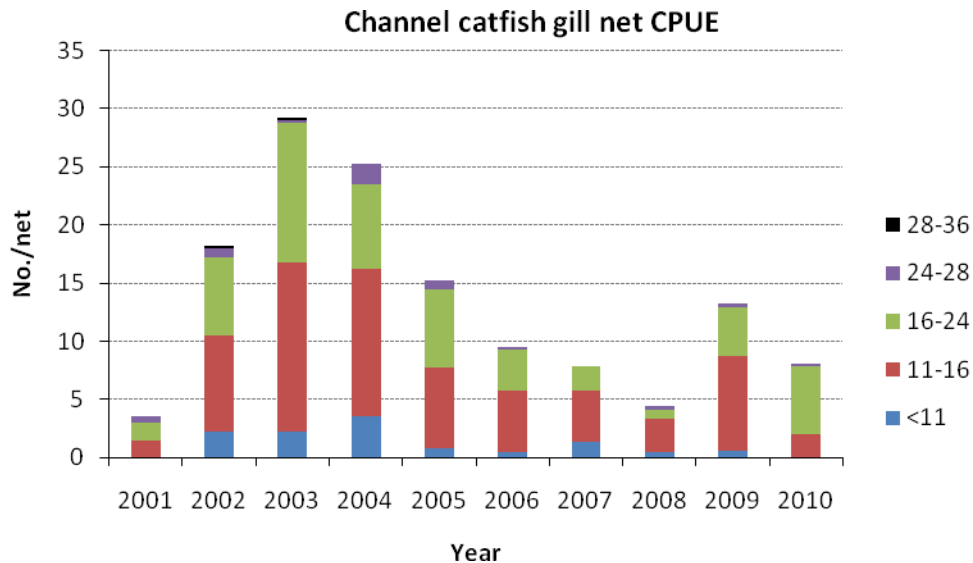
Walleye

Walleye catch remained low in 2010 following several years of good recruitment that resulted from a switch to fry stocking that began in 2004. One million three to five day old fry are stocked annually in the reservoir and have proven far more successful than the fingerling stockings that were used to maintain the walleye fishery prior to 2004. Relatively cold springs the past two years have potentially limited the survival of stocked fry. In addition to those cold springs, relatively poor gizzard shad (the primary prey species in the reservoir) production has had a negative impact on walleye recruitment in recent years. Of the walleye captured during the survey, a little over 80% exceeded the minimum length limit of 15 inches. Thus, if one does catch some walleye, odds are that they will be “keepers”. Growth rate data collected in recent years indicate that walleye reach legal size sometime during their third growing season.



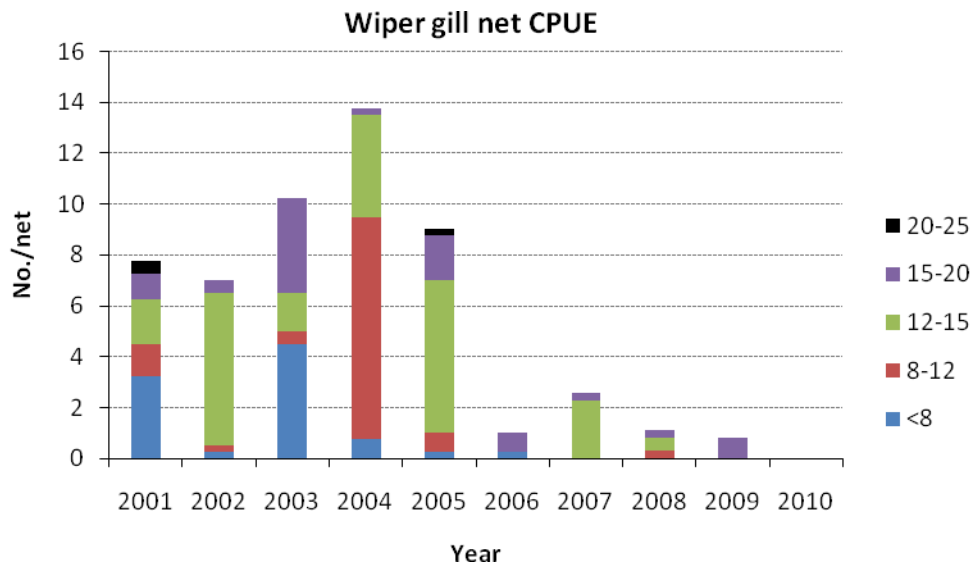
Channel catfish

Gill net sampling resulted in a catch rate of approximately 8 channel catfish per net. An improvement over the low 2008 sample but still well below the desired catch rate of 15 per net. Size structure is good with the majority of the fish ranging from 16 to 24 inches and an average length of 18 inches. Channel catfish in Willow Creek Reservoir exhibit decent growth rates, reaching 15 inches during their fifth growing season. The population is primarily maintained by annual stockings of 7,000 ten-inch fish. Despite the reduced catch, the reservoir is still a good place to visit if one is interested in catching channel catfish.



Wipers (white bass X striped bass hybrid)

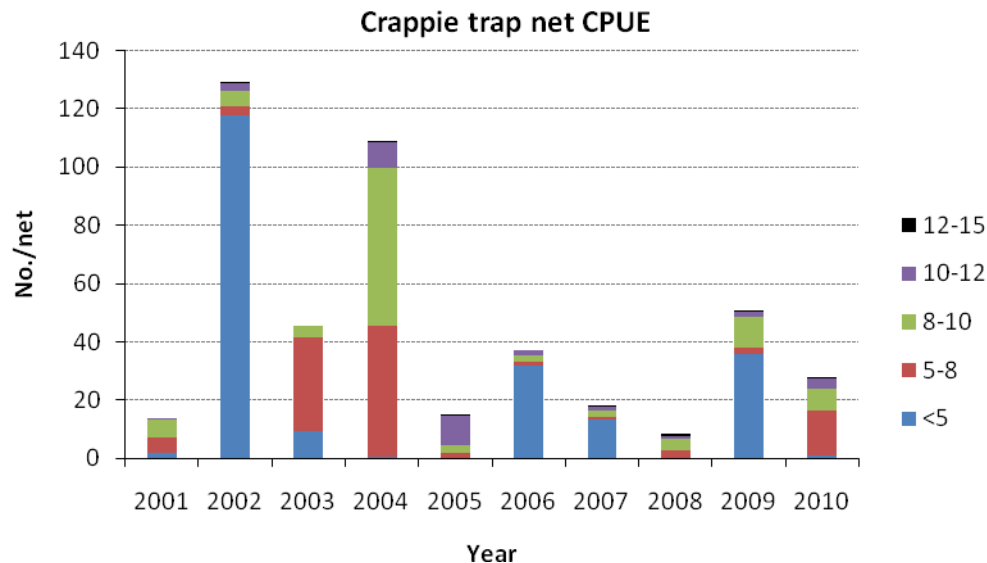
Wiper catch has declined markedly in the last half of the decade and none were collected during sampling in 2010. Numbers have been markedly low since 2005. In 2006 and 2007 this was attributed to the renewed popularity of the reservoir due to the substantial increase in walleye numbers. The increased fishing pressure appeared to take a toll on wipers in the reservoir. Now, with the lack of walleye, it may be more inviting to harvest these fish. Additionally, as with the walleye, wipers rely heavily on the production of young gizzard shad as a food source and that food source was very limited in 2010. When wipers do survive, they grow well in the reservoir and make a very sporty addition to the fishery.



Crappie

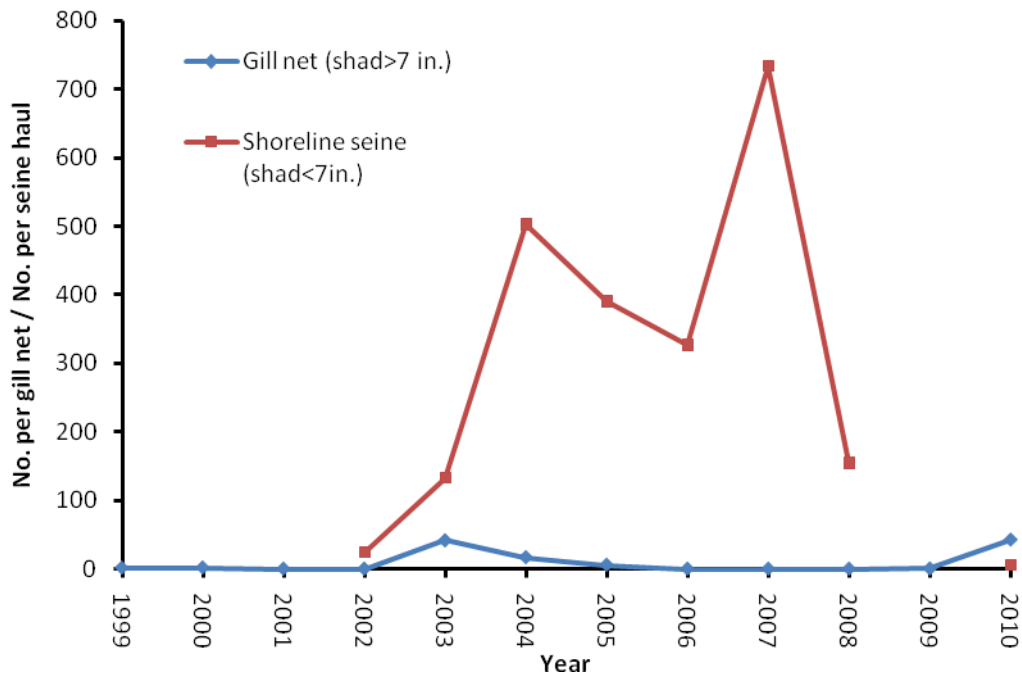
Crappie angling opportunities will be better in 2011 than they have been for a number of years but the majority of the fish may still be a little small. The 2009 year class is driving the population and likely won't approach 9-10 inches until fall 2011 and into the spring of 2012. Most crappie populations tend to be "cyclical", meaning that recruitment is not consistent from year to year. In many reservoirs a strong year class may occur every 3 years or so, depending on a variety of factors. In Willow Creek, however,

that interval is extended and runs 6 to 8 years between strong year classes. As mentioned, the majority of the population is made up of young fish so size structure of the present crappie population is somewhat poor. However, there will be some nice fish mixed in with them. Crappie typically exhibit good growth in the reservoir and it is expected that quality angling opportunities for them will be more likely in 2012.



Gizzard shad

Gizzard shad are the primary prey species in the reservoir and are needed to support the walleye and wiper populations. Shad are on the northern edge of their range in Willow Creek and most winters result in substantial mortality of the population. Adult gizzard shad are stocked on an as-needed basis in the reservoir to circumvent this. The above-mentioned scenario (winter shad mortality) is actually desirable in that we typically don't have a large build-up of adults occurring in the lake most years. Gizzard shad can grow to over 20 inches and 3 or more pounds and if there are high numbers of adults the production of young shad is limited and predators need to find alternate food items or they don't survive. That appears to be where we stand at Willow Creek right now as there were no indications of mass shad die-offs in the reservoir following each of the last two winters (2008/2009 and 2009/2010). In addition to not providing a prey base of small fish, the adult shad can also out-compete young game fish for food resources.



Additonal notes

White bass fingerlings were stocked in the reservoir in 2008 and 2009 in an effort to provide a summer angling opportunity. Once crappie and walleye angling success tapers off around mid-June or so, fishing opportunities become limited in Willow Creek Reservoir. White bass remain active through the summer months and are a very “sporty” fish that provide an exciting angling experience and good tablefare. White bass in Nebraska’s reservoirs approach 10 inches after two years and 12 inches after 3 years. Anglers are reminded that white bass and wiper regulations are aggregate (in combination) and include a 3-fish daily bag limit with only one fish over 18 inches.

*Anglers are also reminded that some bag and possession limits changed as of January 1, 2011. The daily bag limit on channel catfish is now 5 with a possession limit of 10 and the daily bag limit on panfish is 15 in aggregate with a possession limit of 30.